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ABSTRACT

In order to suggest policies aimed at preventing underutilization of early intervention services by typically underserved populations, this study reviewed the literature on utilization of health and social services, devised a generic model of service utilization, and examined the national distribution of several of the model's factors. The model of service utilization considers predisposing family factors, the family's perception of their problem, and enabling factors for services that can address the problem. Data were tabulated from the 1991 Current Population Survey which included approximately 62,500 households. Data concerning family sociodemographic factors associated with underutilization of health and social services were analyzed, considering ethnicity, income, maternal employment, family composition, maternal education, family size, and maternal age. Four types of policies are recommended to facilitate the participation of families who are typically underserved: policies that impact on families' perception of problems and needs, policies that enhance the enabling factors, policies that empower families, and policies that monitor and support services to minorities. The study's strongest recommendation is that policies that are deemed important should be planned for and instituted at the state or federal level rather than be left to the discretion of local service providers. (32 references) (JDD)

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Carolina Institute for Child and Family Policy

# POTENTIAL UNDERUTILIZATION OF PART H SERVICES: AN EMPIRICAL STUDY OF NATIONAL DEMOGRAPHIC FACTORS

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April, 1992

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# EXECUTIVE SUMMARY

In all service programs a substantial proportion of the people who are eligible for services never enter the service system, or do not use it to the full extent of their eligibility. The Education of All Handicapped Children Act, Amendments of 1986, and the Individuals with Disabilities Education Act (IDEA) specify that a special effort must be made to reach populations who are typically underserved. In order to suggest policies aimed at preventing non-random underutilization of early intervention services we reviewed the literature on utilization of health and social services, devised a generic model of service utilization, and examined the national distribution of several of the model's factors.

## A CONCEPTUAL MODEL OF SERVICE UTILIZATION

Families' desire for services and willingness to enter a service system can be conceptualized as resulting from the interaction between three antecedents: predisposing family factors, the family's perception of their problem, and enabling factors for services that can address the problem. Predisposing family factors include family values and sociodemographic characteristics. The family's perception of the problem is determined by symptoms or disabilities, diagnoses, and family characteristics. Enabling factors are the intersection between family and service characteristics that most immediately determine the extent to which families will enter the service system.

## METHOD

Because family characteristics cannot be altered by early intervention services, these characteristics must be taken into account. Policies must be designed that are responsive to the realities of families nationwide. Thus, with data from the 1991 Current Population Survey (CPS) we tabulated and analyzed the nationwide

distribution of family sociodemographic factors that are associated with underutilization of health and social services.

The CPS is a national multistage stratified survey conducted by the Bureau of the Census. It spans every state and the District of Columbia and includes approximately 62,500 households. For the population of children under 5 we estimated the distribution of the following factors.

1) Ethnicity (White non-Latino, Black, Latino, and other)
2) Income (below and above 150% of the poverty line)
3) Maternal employment (labor force participation of more than or less than 30 hours a week)
4) Family composition (female-headed household and others)
5) Maternal education (fewer than 12 or more than 11 years of education) 6) Family size (more than 1 child under 5 and other families, and more than 3 children under 18 and all other families)
7) Maternal age (fewer than 20 or more than 19 at the birth of the index child)

## PREVALENCE OF SOCIODEMOGRAPHIC FACTORS THAT HAVE BEEN SUGGESTED TO BE ASSOCIATED WITH UNDERUTILIZATION OF HEALTH AND SOCIAL SERVICES

**Single determinants**. Our results indicate that nationwide approximately 35% of children under 5 years of age live in families with very low income (under 150% of the poverty line), 32% are of ethnic minority, and 54% have mothers in the labor force. In 18 states more than 30% of the young children are estimated to be of ethnic minority, and in 8 of these states the percentage of young children from ethnic minority is 40 or above. Approximately 24% of young children live in a female-headed

household, 17% have mothers with less than a high school education, and 9% have mothers who were in their teens when the child was born. In addition, approximately 26% of families with young children have at least 1 more child less than 5 years of age, and 9% have 3 more children under 18 years of age.

Several of the nationwide rates of determinants varied drastically by ethnic group. For example, 24% of White, non-Latino young children live in families with very low income, as compared to 65% of young Black children. Similarly, approximately 14% of White, non-Latino children live in female-headed households, as compared to approximately 63% of young Black children. Also, whereas 10% of White non-Latino mothers have less than a high school education, the rate is approximately 50% for Latino mothers.

**Multiple determinants**. Because we propose that the probability of underutilization increases disproportionately with increase in the number of determinants in a family, we also examined the occurrence of joint determinants. Our results indicate that 11% of children live in families with very low income, have mothers in the labor force, and have one more of the following determinants of underutilization: teenaged mothers at their birth, maternal education less than high school, female-headed household, or a large family. Most importantly, approximately half of these children (6%) are also from an ethnic minority. It is particularly noteworthy that only 7% of young children had none of the family sociodemographic factors associated with underutilization.

**Limitations**. There are three important limitations of this study. First, there were important determinants of underutilization such as place of residence or homelessness that could not be examined with the dataset we used. Second, national estimates that pool data across geographic regions and various populations provide stable estimates, but fail to portray important variability. We suggest that studies be

conducted to address these two issues. Third, we stress that all rates presented in this report are estimates and should not be confused with actual population values.

## IMPLICATIONS

Given our findings, we suggest that a substantial proportion of the children in need of services may be underserved unless policies help to direct appropriate services to their families. Providing services for the population of children who are typically underserved is particularly important because these children tend to have a greater than average prevalence of health problems and developmental delays. This population is served not when the number of children receiving services is proportional to the size of the population, but when the number served is proportional to the need in that population.

## POLICY OPTIONS TO MAXIMIZE ACCESSIBILITY OF EARLY INTERVENTION SERVICES TO ALL FAMILIES

We suggest that there are four types of policies that may facilitate the participation of families who are typically underserved.

**Policies that impact on families' perception of problems and needs**. Before entry into the service system can occur, a family must recognize that their child has a developmental problem and that services exist for that problem. We suggest:

1. Public awareness campaigns that specifically target minority populations
2. Provision of information on early intervention services to a wide network of service providers, community leaders, clergy, and others who deal with families with young children

**Policies that enhance the enabling factors**. Strong enabling factors make services feasible for families who would otherwise not be able to consider them. Ways to facilitate services include the following:

1. Minimize the cost of service
2. Provide transportation
3. Provide care for young sibling during meetings with parents
4. Provide services at child care facilities

**Policies that empower families**. The intent of IDEA is to empower families. We suggest that power means having a wide range of choices and the freedom to choose. Families should be able to:

1. Define who are its members
2. Choose the language for meetings, assessments, and services
3. Choose times for meetings and services that do not interfere with working schedules
4. Choose their service coordinator

**Policies that monitor and support services to minorities**. To ascertain that minority populations are being reached, we suggest the following:

1. Include sociodemographic characteristics as key variables in data systems
2. Employ service providers who are ethnically representative of the client population
3 Include specialists who can provide training, supervision and technical assistance on issues of cultural sensitivity.

## IMPLICATIONS

Given the proportion of children who have more than one determinant of underutilization, our strongest recommendation is that policies that are deemed important should be planned for and instituted at the state or federal level and not be left to the discretion of local service providers. There are a couple of major reasons why policies should be developed and implemented at the federal or state level. First, local choice cannot be exercised if the option does not exist. For example, local programs cannot opt to hire ethnic minorities if there are no professionals from the relevant ethnic backgrounds. Second, service providers cannot be expected to divert funds from the provision of services to policies with long range goals. By training and experience their choice will generally be to provide services. Thus, programs must be planned and funds earmarked at the state or federal level. The lead in the development of progressive policies needs to be taken at the state or federal level.

# INTRODUCTION

In all service programs a proportion of the people who are eligible for services never enter the service system, or do not use it to the full extent of their eligibility. Incomplete use of services is termed underutilization. By law, state policymakers of the Part H programs should minimize non-random underutilization. In this document we provide a model of the determinants of service utilization, report on the prevalence of selected determinants, and suggest policies which may aid to prevent systematic underutilization. The purposes of this document are to alert policymakers to the distribution of sociodemographic characteristics that have been associated with underutilization, and to review policies that may impact underutilization.

## Mandate to Extend Services to Populations Typically Underserved

It is implied in PL 99-457 (Sec. 678.6) and stated more directly in PL 102-119 that a special effort must be made to serve populations that are typically underserved. More specifically, the regulations are as follows:

"Sec. 1471(a)

The Congress finds that there is an urgent and substantial need-

> (5) to enhance the capacity of State and local agencies and service providers to identify, evaluate, and meet the needs of historically underrepresented populations, minority, low income, inner city, and rural populations."

"Sec. 1478

States shall-

> (7) beginning in fiscal year 1992, provide satisfactory assurance that policies and practices have been adopted to ensure meaningful involvement of traditionally underserved groups, including minority, low-

income, and rural families, in the planning and implementation of all the requirements of this part and to ensure that such families have access to culturally competent services within their local areas"

As can be seen from the regulations quoted above, the general sociodemographic characteristics of the populations that are typically underserved are well known. The regulations list minority, low income, inner city, and rural populations. However, to address the problem of underserving segments of the population, we think it is best to view utilization from the perspective of the family. In early intervention it is the family that seeks services, and it is the family that has the right to accept or reject services. For identification of policy options, it is necessary to have an understanding of how family factors affect utilization. Below we propose generic model of family factors and the way in which these factors interact with the service sector to determine family's willingness or unwillingness to enter the service system.

## SERVICE UTILIZATION

### A Conceptual Model of Service Utilization

**Entry to and maintenance within a service system**. Utilization of services is a two-step process; entry into the service system, and maintenance within the system. Adherence to a treatment plan provides an added dimension to maintenance within a service system, bringing the total number of components of full utilization to three. For all three components--entry, maintenance, and adherence--sets of family and service factors have been identified as determinants of use of service. In this report emphasis is placed on the determinants of entry into service systems. The entry determinants, in addition to overlapping with the determinants of maintenance within a system, are most pertinent to statewide policies. Adherence to a service or treatment plan is more closely associated with family attitudes and belief

about the severity of the condition (Bush & Ianotti, 1990), perceived need for services (Bush & Ianotti, 1990; Horwitz, Morgenstern, & Berkman, 1985), and the belief about the merit of professional recommendations (Cadman, Shurvell, Davies, & Bradfield, 1984), and less related to the type of policy decisions that are currently being made. Thus, the focus of this report is on the determinants of entry rather than on the determinants of maintenance or adherence.

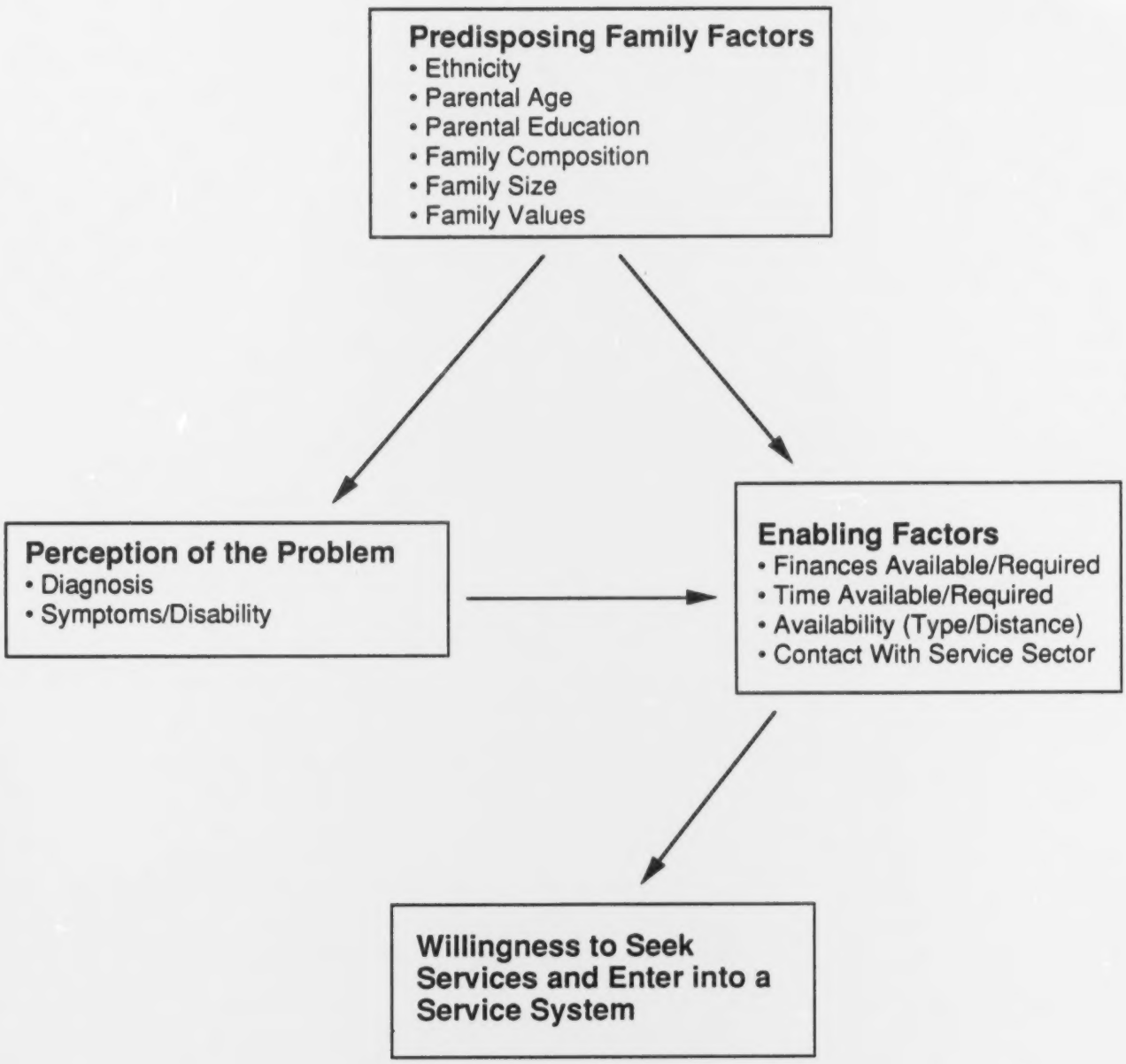
In an adaptation of two relevant models from the health field, the Health Belief Model (Rosenstock, 1966), and Andersen and Newman's (1973) generic model of medical care utilization, families' willingness to seek services can be conceptualized as resulting from the interaction between three antecedents: predisposing family factors, the family's perception of their problem, and enabling factors for services that can address the problem (See Figure 1).

**Antecedent: Predisposing family factors**. Predisposing family factors are individual and family characteristics, which include: ethnicity, parental education and age, family composition, size, and values. Although this is not a comprehensive list of family factors that may affect utilization, these six characteristics are the ones that appear most prominent in the utilization literature. They affect entry into a service system by having an impact on the family's perception and interpretation of diagnosis, symptoms or disabilities, and their subsequent assessment of their problem.

**Antecedent: Family's perception of the problem**. In any given family, perceived problems and enabling factors interact and add to determine the family's desire for services and subsequent entry into a service system. Symptoms, disabilities and diagnosis are perceived by the family as a deficit or problem. The perception that the problem can be ameliorated or corrected is determined by the family's knowledge of the availability of services specifically for that problem, and their perceived ability to procure them. Contact with the service sector increases the likelihood of entry into a

Figure 1

**Process that Gives Rise to Families' Willingness to Seek Services**



service system because it serves as a significant source of information or referral. Once the family is aware of services to address their problem, the family becomes willing to allocate its resources (time and money) for procuring services to the extent that it considers these necessary and beneficial. In other words, the family allocates its resources in light of the perceived severity of their problem.

**Antecedent: Enabling factors**. Predisposing family factors are also strong determinants of enabling factors. These latter are activities or characteristics of the family and of the service sector that make the use of services feasible. They are best viewed as the intersection between the family and the service sector. The major ones are: the ratio of finances available to the family for procuring services to the cost of services, the ratio of time available to the family for services to the time required for services, the availability of the type of services needed in relation to the distance to them, and previous or current contact with the service sector.

**Desire for service**. The interplay of the three antecedents --predisposing family factors, perception of problem, and enabling factors--are such that when the perception of the problem and enabling factors are both high, service utilization is high and the predisposing family factors are not seen as strong determinants of services. However, when the perception of the problem is low and enabling factors are also low, the predisposing family factors are observed to play a role in determining the extent to which families are willing to seek services.

To illustrate the interplay of the perception of the problem and enabling factors in determining the willingness to seek services, several hypothetical situations are depicted in Figure 2. A family is willing to seek services when the sum of the perceived problem and of enabling factors is positive. Families enter the service system when both perception of the problem and enabling factors are positive. (Figure 2a), or when the sum of the two is positive (Figure 2b). In other words, even if enabling

Figure 2

**Examples of Ways in Which the Perception of the Problem (P) and Enabling Factors (E) Determine the Families' Willingness to Seek Services (W).**

Fig. 2a

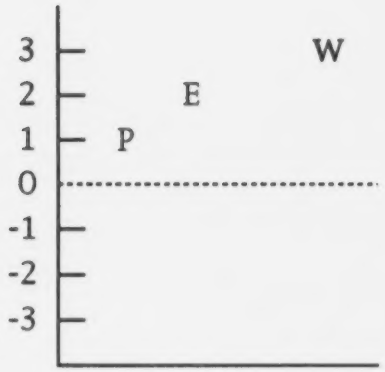



Fig. 2b

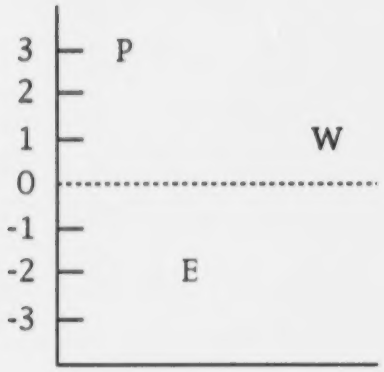



Fig. 2c

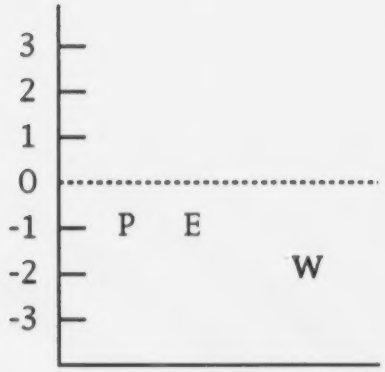
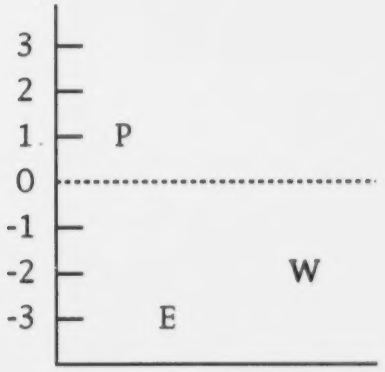



Fig. 2d




P = Perception of the problem
E = Enabling factors
W= Willingness to seek services
Willingness = Perceived problem + Enabling factors

factors are low, if the problem experienced by a family is perceived as sufficiently severe to outweigh low enabling factors, then the family is likely to seek services. If the sum of perceived problem and enabling factors is negative a family will not seek services (Examples are Figure 2c and 2d). Maintenance in the service system probably occurs as long as the sum of perceived problem and enabling factors is positive.

**Empirical Support for the Utilization Model**

**Predisposing family factors**. It is well established that sociodemographic factors are strong determinants of utilization of services. In general, the family factors that have been associated with underutilization of health and social services are minority ethnicity, young parental age, low parental education, family composition (female-headed), and large family size (Allen, Affleck, McGrade, & McQueeney, 1984; Butler, Winter, Singer, & Wenger, 1985; Fergusson, Dimond, Horwood, & Shannon, 1984; McDonald, & Coburn, 1988; Neighbors, 1984; Rudolph & Porter, 1986; Singer, Butler, & Palfrey, 1986; Stein, 1983; Wolinsky, 1982).

**Predisposing family factors: Ethnicity**. Ethnicity is a major determinant of service utilization (Bruder, Anderson, Schutz, & Caldera, 1991; Butler et al., 1985; Neighbors, 1984; Singer et al., 1985; Wolinsky, 1982). Although it is difficult to separate ethnicity from issues of family income, size and composition, there is evidence that ethnicity is a significant independent factor in the use of services. For example, Latino children (of Spanish or Latin American descent) have been found to be three times as likely as White non-Latino children to not have a regular source of health care, and to be without insurance coverage (Butler et al., 1985; Singer et al., 1986). Latinos have twice the national rate of zero visits to a health care provider in the first two years of life (Butler et al., 1985). Although Blacks are not quite as removed from the health care system as Latinos they are still significantly underserved as

compared to White non-latino children. More specifically, Black children are twice as likely as White non-Latino children not to have a regular source of care, and not to see a physician in a year (Singer et al., 1986).

**Predisposing family factors: Maternal education, maternal age, and family composition**. There is substantial evidence that maternal education (Allen, Affleck, McGrade, & McQueeney, 1984; Fergusson et al., 1984; Lowitzer, 1989; McDonald & Coburn, 1988; Singer et al., 1986) and age (Brink, Martin, Golden, & Smith, 1985; Rudolph & Porter, 1986; Fergusson et al., 1984; McDonald & Coburn, 1988), family size (Fergusson et al., 1984) and composition (Fergusson et al., 1984; McDonald & Coburn, 1988) are determinants of use of services. For example, in a study of the utilization of preschool health and educational services in a general population sample, the lowest utilization in the sample was among children of young mothers, children whose mothers lacked formal education, children of single parents, and children from low income families (Fergusson et al., 1984) even though all services were free. Similarly, in a study on the predictors of prenatal care utilization (McDonald & Coburn, 1988), utilization was associated with women's low education, non-married status, younger age and low income.

**Perception of the problem**. Families' perception of the severity of their problem is associated with their use of services (Neighbors, 1984; Rudolph & Porter, 1986) or medication (Bush & Iannotti, 1990). In general, services are sought most readily for physical problems (Neighbors, 1984), and problems that are more clearly specified and visible (Rudolph & Porter, 1986; Singer et al., 1986). Singer and associates (1986) found that children with low prevalence conditions (conditions that are highly noticeable such as Down's syndrome, cerebral palsy and deafness) were twice as likely as children with high prevalence conditions (speech and learning problems) to have a regular source of care.

In the absence of a clearly diagnosed problem, families' perception of their need for services is largely determined by predisposing family factors. Use of preventive services such as dental care (Wolinsky, 1982), prenatal care (McDonald & Coburn, 1988), and well child care (Fergusson et al., 1984) are strongly associated with sociodemographic characteristics.

**Enabling factors: Financial resources available for procuring services**. The intersection of family and service factors is crucial to the utilization of services. In terms of resources, family income is an obvious determinant of families' willingness to seek services (Allen et al., 1984; Butler et al., 1985; Fergusson et al., 1984; McDonald & Coburn, 1988; Singer et al., 1986). Families must have the ability to cover the direct and indirect cost of services. For example, children from families that are "near poor," or just above the poverty line, have been found to receive less health care than children below the poverty line (Butler et al., 1985). Because Medicaid provided coverage only for families under the poverty line, those immediately above it were not covered, and do not have the resources for services which were not deemed crucial.

**Enabling factors: Time available for procuring services**. Time available for services is the second essential resource for utilization. Its lack is the most significant barrier to various aspects of utilization. Parental involvement in early intervention is deemed essential. However, parents in general (McKinney & Hocutt, 1982), and especially minority parents (Stein, 1983), cite lack of available time due to home or work demands as a significant barrier to involvement in their children's programs.

**Enabling factors: Availability of services**. A third determinant is the availability of services. Populations residing in remote rural areas or in inner cities have particular difficulty in utilizing services. Distance to services has been

significantly associated with use of prenatal care (McDonald & Coburn, 1988) and with use of pediatric care (Horwitz, Morgenstern, & Berkman, 1985). Similarly, in an analysis of health care use, Butler et al. (1985) reported that 88.9% of children residing in inner cities did not have a regular source of care.

**Enabling factors: Contact with the service sector**. The last enabling factor is family contact with the service sector. For example, Rudolph and Porter (1986), in a study on social service utilization by families of infants discharged from a neonatal intensive care unit, reported that the strongest determinants of service utilization were contact with a social worker and diagnosis of abnormality and anomaly at discharge. Whereas diagnosis of abnormality affected the families' perception of a problem in need of services, contact with the service sector allowed families to become informed about the availability of services. Interestingly, of the predisposing factors, only maternal age was positively associated with use of services. Thus, when the problem is perceived as serious, and enabling factors are favorable, predisposing family factors are not strong determinants.

**Summary**

The interplay between predisposing family factors, perception of the problem, and enabling factors determine families' willingness to enter the service system. Although all of the factors reviewed are determinants of service, their relative importance depends on the type of service in question, the severity of the condition, and the multiplicative effect that factors are likely to have.

The importance of the utilization model presented above is clear. Predisposing family factors are not amenable to change by the type of policies that can be developed in relation to Part H, but the perception of problems and the service aspect of enabling factors are responsive to appropriate policies. Predisposing family factors are a given. IDEA cannot affect families' available time and financial resources. But,

specifically because these factors cannot be altered, they must be taken into account. Consequently, we focus on the distribution of sociodemographic and enabling factors that must be taken into consideration in the design and implementation of policies. We pay particular attention to the number of children who have more than one determinant of underutilization, because we think that populations with multiple determinants are at particularly high risk of being underserved.

## METHOD

Given the model presented above, we generated estimates of the geographical distribution of ethnicity. We also generated estimates of the geographical and ethnic distribution of family income, and maternal labor force participation. In addition we examined the distribution of family composition and size, and maternal education by ethnic group.

### Survey Sample

We used the March 1991 Annual Demographic File of the Current Population Survey (CPS) to derive population estimates of the factors of interest. The CPS is a national multistage stratified survey conducted by the Bureau of the Census. It is used to collect monthly statistics on national labor force participation for the U.S. Bureau of Labor Statistics. National demographic information are collected every March, and relevant variables include information on educational attainment, income, and family structure.

Each year's March sample is drawn from the noninstitutional population of the United States living in housing units, and from members of the Armed Forces living in civilian housing units or households outside military bases. The survey spans every state and the District of Columbia and includes approximately 62,500 households.

## Variables

All estimates presented in this report were made on the basis of the number of children less than 5 years of age or on the number of families with at least one child under the age of 5. The sociodemographic characteristics of interest were defined in the following manner:

1. Ethnicity. In a nation of immigrants, ethnic distinctions can be made along multiple lines. For this study ethnicity was broken down into the following five distinct categories: White non-Latino, Black non-Latino, Latino (includes White and Black Latinos), Native American, and other racial or ethnic groups. The variable labeled "minority" is the sum of the estimates of Black, Latino, Native American, and other ethnic minorities. All other variables presented below were tabulated by ethnic group.

2. Very low income (VLI). Income was defined categorically. Children were divided into those whose family income was above and those whose family income was below 150% of the poverty line. One hundred-and-fifty percent of the poverty line was selected as cutoff because the service utilization literature suggests that families who are near poverty (just above 100% of the poverty line) have had substantial difficulty in accessing services. The poverty line used in the 1991 CPS was set in 1990. *For a family of 4 it was $13,254.*

3. Mother in labor force. The amount of time available to families was assumed to be influenced significantly by participation of the mother in the labor force. Although the participation of fathers is highly desirable, mothers are typically the parent most involved with the services for their children. Children were sorted categorically according to whether or not their mothers were in the labor force. Labor force participation was defined as being employed for more than 30 hours per week or looking for a job.

4. Female-headed household. Family composition was broken down categorically into families headed by a single female, and all other families. This variable taps the availability of both time and money, but is also assumed to be a significant determinant of underutilization in itself.

5. Maternal education less than 12 years. Maternal education was examined by classifying children into two groups: those whose mother had more than, or less than a high school education.

6. Large family. Families were classified in two distinct ways. First, families with a child under 5 years of age were broken down into two groups: those with more than 1 child under 5, and those with only 1 child under 5. Second, families with a child under 5 were classified into two groups; those with more than 3 children under 18 years of age, as well as those with fewer than 3 children under 18. This limited definition of family size was chosen because the intent was to select families in which the available time of parents was limited by the demands of providing care to their children.

7) Teen mother. Children were classified into two groups; those whose mothers were younger than 20 at the child's birth, or those whose mothers were older than 19 at the time of the child's birth.

**Analysis**

Estimates of the variables of interest were first generated by state and by ethnic minority. Depending on the issue of interest data were then pooled to provide regional and national estimates, and estimates across ethnic groups.

**Reliability**. Because the reliability of estimates that are generated is an important consideration in this type of analysis, standard errors were derived and examined for all estimates. One standard error above and one standard error below an estimate represent the boundaries within which 68% of estimates would fall if the

same survey were to be conducted 100 times. Standard errors provide an indication of how confident one can be that any given estimate approximates the actual population value.

Reliability improves as the size of the sample increases. In the CPS sample, the number of people with the characteristics of interest were relatively few. First, the population of interest was limited to children under 5 years of age. Second, the occurrence of some of the variables is low. Therefore, in order to provide reliable estimates, data were pooled across geographical regions and/or ethnic groups.

For all tables presented in this report, percentage estimates are given only if the standard error for that percent was deemed acceptably low. Unfortunately, no hard and fast rule could be followed. A standard error of .90 may be acceptable for an estimate of 2% percent because it means that the probability is .68 that the actual population value is between 1.1 and 2.9. However, an estimate of 70% with a standard error of proportionately the same value (31.5) would provide a range from 38.5% to 101.5% for a .68 probability for the actual population value. All values presented herein are therefore estimates and cannot be interpreted as actual population values.

**Geographical regions**. Geographical regions were defined using three criteria: the estimated percentage of each state's population that is of ethnic minority, whether that minority is primarily Black, Latino or Native American, and the estimated poverty level at each state. The 1990 States in Profile (Brizius & Foster, 1990) was used as the source of information for grouping states.

## RESULTS AND DISCUSSION

### Single Determinants Across Ethnic Minorities

**Distribution of ethnic minorities.** Table 1 contains the estimated number of children younger than 5 by state, the estimated percentage who were of ethnic minority, and the estimated percentage of children who were Black or Latino by state and region. Estimates of Native American children and other minorities are not presented because those populations are too small to provide reliable estimates.

Our results indicate that nationwide, approximately 32% percent of the children under 5 (approximately 6,700,000) were of ethnic minority (See Figure 3). The two largest ethnic minorities were Black (16% or approximately 3,000,000 young children) and Latino (12% or approximately 2,300,000 young children). Obviously, there is considerable geographical variability in the percentage of children who are of ethnic minority (See Figure 4). However, it is noteworthy that the percentage of young children who are of ethnic minority is approaching majority status in large areas of the country. For example, our results show that 47% of the young children in Texas, and 51% of the young children in California were of ethnic minority. In the District of Columbia approximately 84% of children were from "minority" ethnic groups.

The large percentage of children from ethnic minorities suggests that rather than being a token politically correct gesture, policies that are sensitive to cultural diversity are a necessity. The need for culturally sensitive policies is most evident when population trends are examined. In 1985, 28% of children under 18 were of ethnic minority. But the percentage of minority children has been estimated at 32.7 for the year 2000 and at 40.7 by the year 2030 (Children's Defense Fund, 1991). Given the high variability within and between states, large areas of the country will be predominantly Black and/or Latino in another generation.

TABLE 1

Estimated Number of Children Younger Than 5 and Estimated Percentage of Children of Ethnic Minority

| | Estimated Number of Children Younger Than 5 | Estimated Percentage of Ethnic Minority[a] | Estimated Percentage Black[b] | Estimated Percentage Latino[c] |
|---|---|---|---|---|
| Region I | | 15 | 6 | 6 |
| ME | 95,900 | - | - | - |
| NH | 69,200 | - | - | - |
| VT | 40,500 | - | - | - |
| MA | 380,600 | 19 | - | - |
| RI | 64,100 | - | - | - |
| CT | 284,200 | 19 | - | - |
| Region II | | 32 | 16 | 13 |
| NY | 1432,800 | 36 | 14 | 18 |
| NJ | 588,400 | 33 | 16 | 13 |
| MI | 651,600 | 22 | 18 | - |
| Region III | | 15 | 13 | - |
| PA | 816,200 | 15 | 12 | - |
| OH | 815,200 | 15 | 13 | - |
| IN | 399,100 | 25 | 23 | - |
| KY | 239,500 | - | - | - |
| WV | 117,900 | - | - | - |
| Region IV | | 34 | 29 | 2 |
| DE | 41,200 | - | - | - |
| MD | 395,000 | 38 | 29 | - |
| DC | 54,700 | 84 | - | - |
| VA | 489,500 | 26 | 22 | - |
| NC | 447,800 | 32 | 28 | - |
| TN | 341,300 | 39 | 36 | - |
| Region V | | 40 | 32 | 6 |
| SC | 233,900 | 39 | 38 | - |
| GA | 485,700 | 44 | 41 | - |
| FL | 971,200 | 38 | 21 | 15 |
| AL | 326,300 | 37 | 34 | - |
| MS | 254,200 | 50 | 50 | - |
| AR | 164,800 | 24 | 21 | - |
| LA | 306,000 | 40 | 40 | - |

| | Estimated Number of Children Younger Than 5 | Estimated Percentage of Ethnic Minority[a] | Estimated Percentage Black[b] | Estimated Percentage Latino[c] |
|---|---|---|---|---|
| Region VI | | 44 | 12 | 29 |
| TX | 1433,700 | 47 | 13 | 32 |
| NM | 128,800 | 44 | - | 34 |
| CO | 290,100 | 28 | - | 14 |
| Region VII | | 30 | 19 | 7 |
| OK | 230,700 | 28 | 13 | - |
| KS | 209,500 | 14 | - | - |
| MO | 473,000 | 20 | 19 | - |
| IL | 973,000 | 39 | 24 | 12 |
| Region VIII | | 13 | 3 | 3 |
| WI | 326,800 | 10 | - | - |
| MN | 308,600 | 16 | - | - |
| IA | 134,600 | - | - | - |
| ND | 40,900 | - | - | - |
| SD | 51,100 | - | - | - |
| NE | 124,100 | - | - | - |
| MT | 64,400 | - | - | - |
| ID | 85,700 | - | - | 11 |
| WY | 32,700 | - | - | - |
| UT | 175,100 | - | - | - |
| WA | 352,800 | 19 | - | - |
| OR | 215,200 | 12 | - | - |
| Region IX | | 49 | 5 | 33 |
| AZ | 288,300 | 37 | - | 29 |
| NV | 105,300 | 26 | - | - |
| CA | 2567,100 | 51 | 5 | 35 |
| AK | 48,300 | 34 | - | - |
| HI | 82,100 | 67 | - | - |
| US Total | 19,299,000 | 32 | 16 | 12 |

Note. [a]Ethnic minority includes Black, Latino, Native American and other minority ethnic groups.
[b]Black does not include Latinos.
[c]Latino includes both White and Black Latinos.
"-" Percent or the state population is too low to generate a reliable estimate.

Figure 3



**National Ethnic Breakdown of Children Younger than 5**

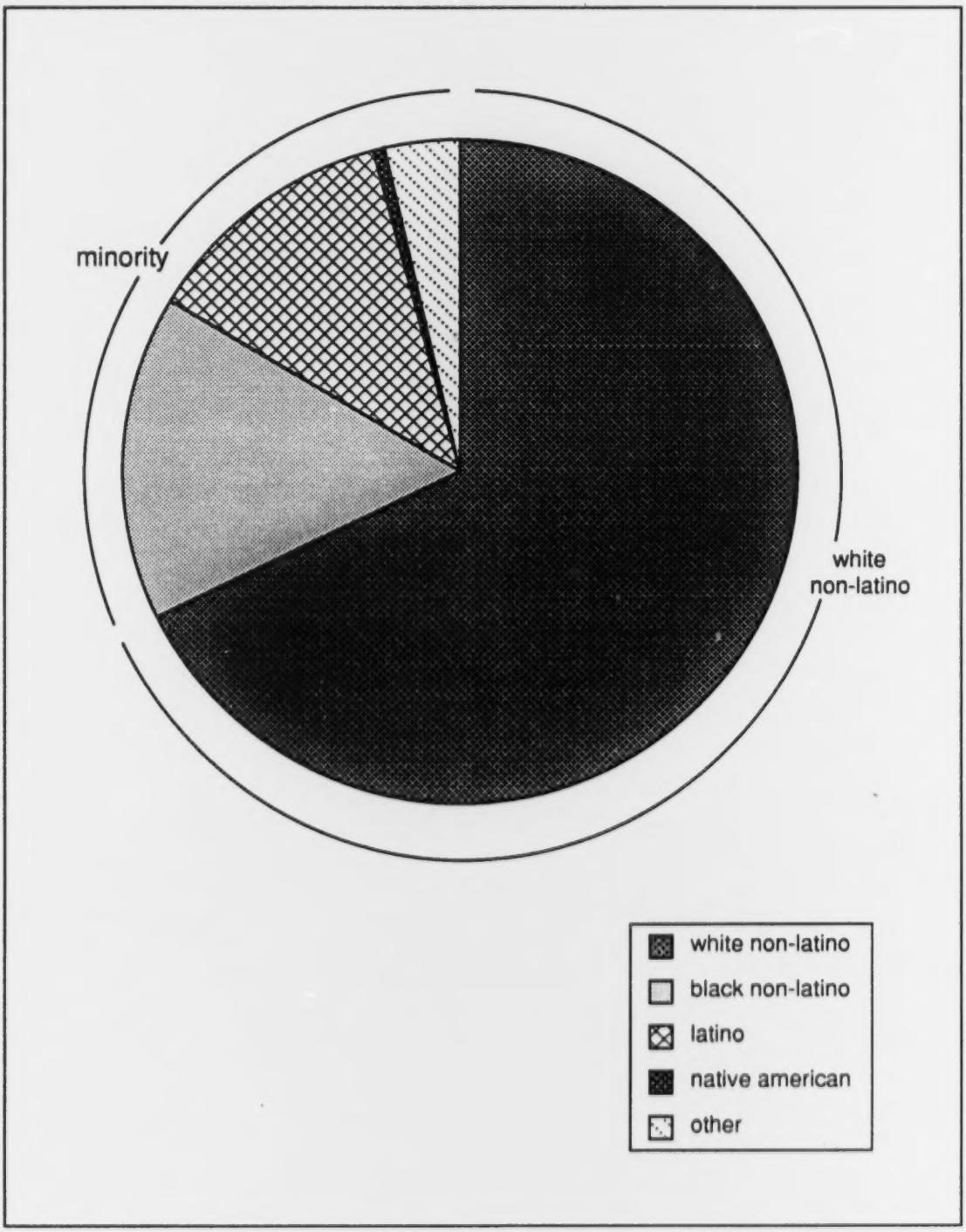
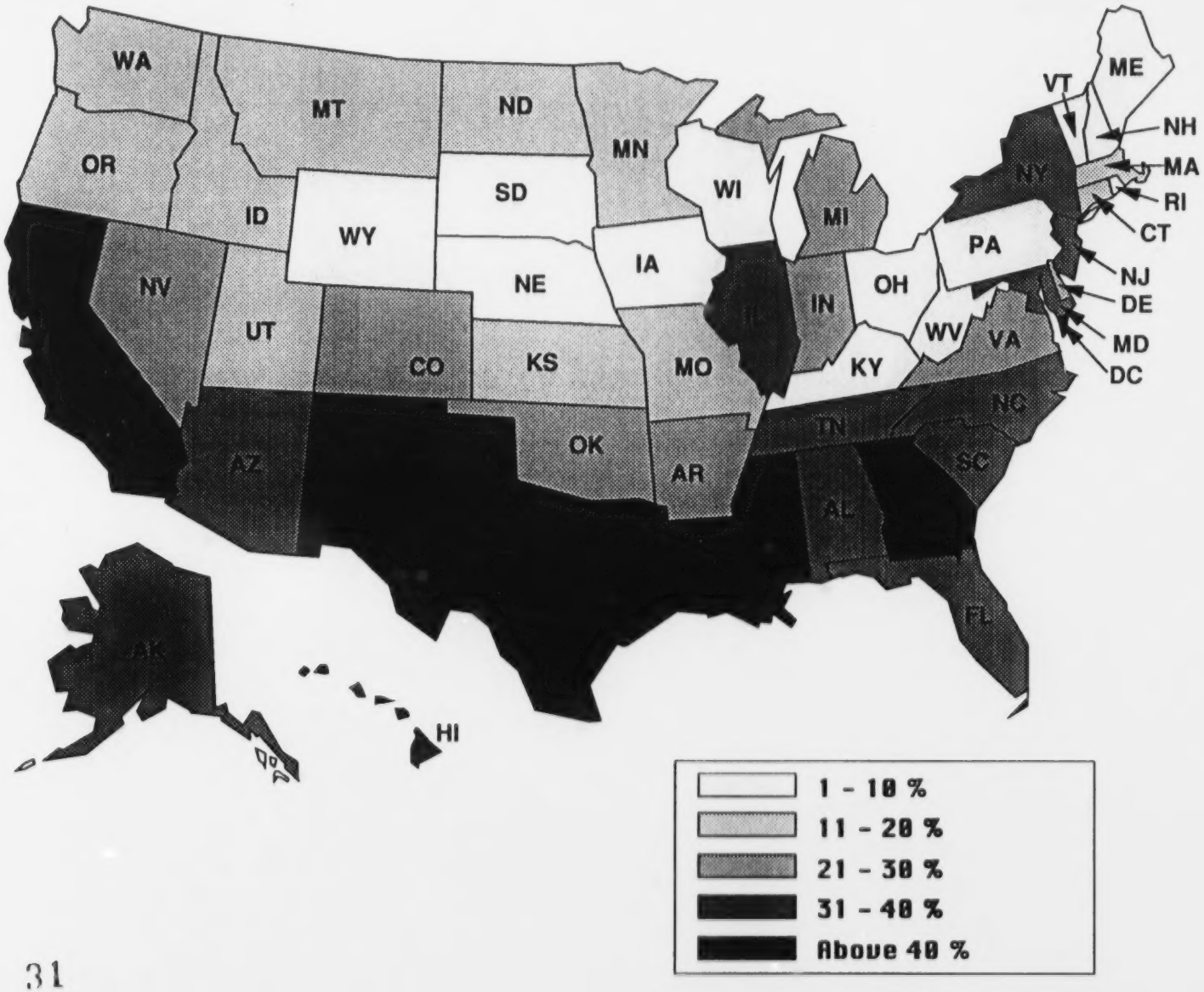


Figure 4

**Estimated Percentage of Children of Ethnic Minority under 5 Years of Age**



**Very low income (VLI)**. According to various sources (Bureau of the Census, 1988; Children's Defense Fund, 1991; Center for the Study of Social Policy, 1991) one out of every five children (20%), and one in four infants and toddlers under the age of 3 (25%) lives in a family with income below the federal poverty level. However, the federal poverty level is not an appropriate cut-off for estimating the percentage of children who are at increased risk of under-utilizing services.

Table 2 contains the result of our tabulations on the estimated percentage of children living in families with VLI. The first column has the estimated percentage of all children in families with VLI. The second column has the estimated percentage of minority children whose families had VLI. The third column contains the estimated percentage of children from the total population who were both minority and lived in families with VLI. Overall, our results are highly comparable to statistics presented by the U.S. Bureau of the Census (1990) on the percentage of children under 18 living in families with VLI. As can be seen from the first column in Table 2, we estimate that nationwide, 35% of all children below the age of 5 (approximately 6,800,000) lived in families with incomes below 150% of the federal poverty level. The percentage was considerably higher for children from ethnic minorities (59%). In the total population of young children, approximately 19% were both from an ethnic minority and lived in families with VLI (See Figures 5 and 6).

Minority children living in families with VLI have two determinants of underutilization and are therefore at particular risk for not receiving services. In some states, as many as 27% were both ethnic minority and lived in families with VLI. To illustrate, the state of Florida has a young child population estimated at 971,200 children, and 27% of those children were both minority and lived in families with VLI. This percentage represents over 262,000 children. Should 1% of those children require services, over 2,600 children are at risk of going underserved if policies are not

Table 2

Estimated Percentage of Children Living in Families with Very Low Income, by Region and Ethnic Minority Background

| | Estimated Percentage of Children Who Live in Families with Very Low Income | Estimated Percentage of Minority Children Who Live in Families with Very Low Income[a] | Estimated Percentage of Children Who Are Minority and Live in Families with Very Low Income |
|---|---|---|---|
| Region I<br>ME, NH, VT,<br>MA, RI, CT | 26 | 69 | 10 |
| Region II<br>NY, NJ, MI | 33 | 60 | 19 |
| Region III<br>PA, OH, IN,<br>KY, WV | 34 | 65 | 10 |
| Region IV<br>DE, MD, DC<br>VA, NC, TN | 36 | 57 | 20 |
| Region V<br>SC, GA, FL<br>AL, MS, AR, LA | 43 | 69 | 27 |
| Region VI<br>TX, NM, CO | 38 | 54 | 23 |
| Region VII<br>OK, KS, MO, IL | 37 | 63 | 19 |
| Region VIII<br>WI, MN, IA, ND, SD<br>NE, MT, ID, WY, UT,<br>WA, OR | 30 | 53 | 7 |
| Region IX<br>AZ, NV, CA | 35 | 53 | 26 |
| US TOTAL | 35 | 59 | 19 |

Note. [a]Ethnic minority includes Black, Latino, Native American and other minority ethnic groups.
The populations of Alaska and Hawaii were too small to generate reliable estimates and both are unique states which can not easily be grouped with other states.
All estimates are on the basis of the population of children younger than 5.

Figure 5

## Family Income of Children Younger than 5

Fig. 5a

Proportion of all children above and below 150% of the poverty line

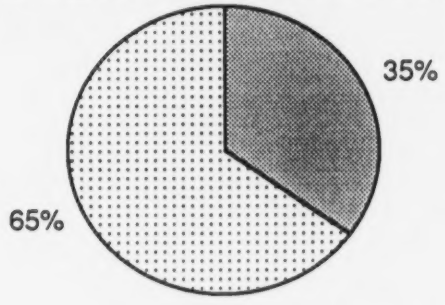



Fig. 5b

Proportion of white, non-latino children above and below 150% of the poverty line

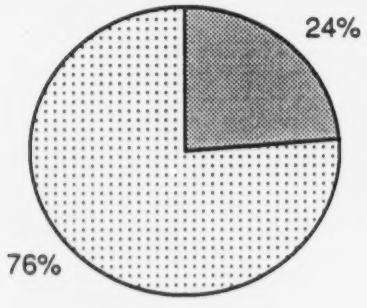



Fig. 5c

Proportion of minority children above and below 150% of the poverty line

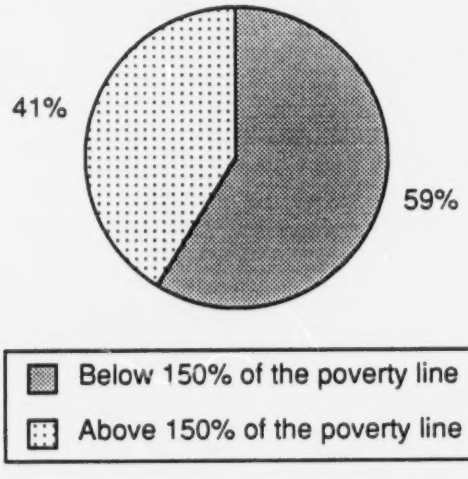
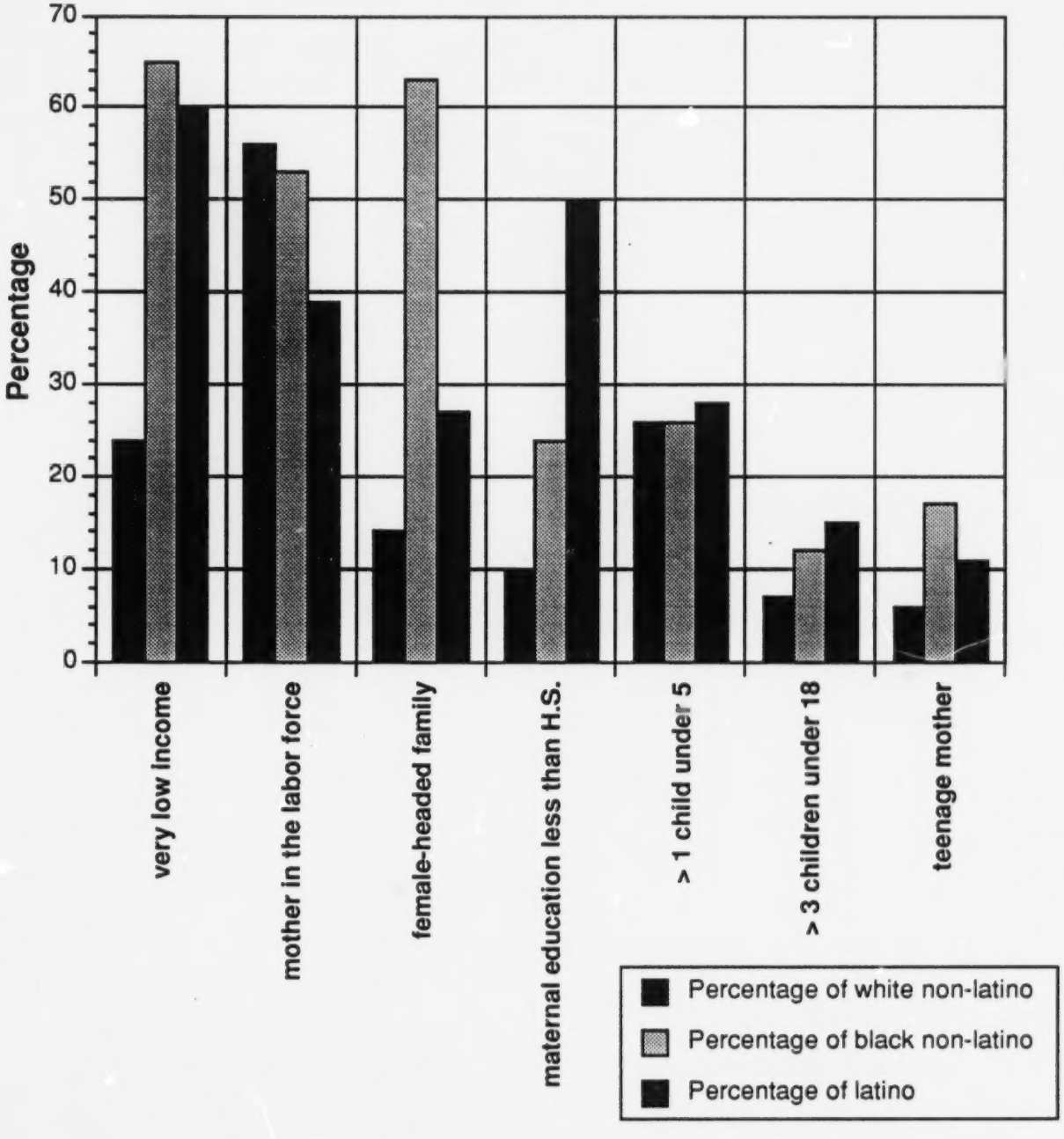


Figure 6

**Estimated National Percent of Some of the Family Factors Hypothesized to Determine Utilization of Services, Within Ethnic Group.**



sensitive to the needs of families who are minority and have VLI. Because the proportion of minority children will continue to increase over the next 20 years (National Commission on Children, 1991; Bureau of the Census, 1989a), and because these children are disproportionately disadvantaged, the nation faces an increasingly greater number of children for whom sensitive policies are crucial.

**Mother in labor force**. Maternal employment seriously curtails the time families have available for services. In 1970, 32% of mothers with children under 6 were employed or looking for work (National Commission on Children, 1991). Our results indicate that currently of the children who live with their mothers, 54% of those under 5 have mothers in the labor force (See Table 3). This figure is comparable to the estimate provided by others (Children's Defense Fund, 1991; U.S. Bureau of the Census, 1989b). For example, according to the Children's Defense Fund (1991) the percentage of married women with children under six who were in the labor force in 1988 was 57%. If the trend of the past 20 years continues, policies that take into account the reduced time, and the lack of flexibility in schedules of working parents can help to ensure that the children will not have to forego services.

As can be seen from Table 3, there were three geographical regions encompassing 13 states in which at least 20% of the young child population was of ethnic minority and had mothers in the labor force. This group of children may be at higher risk of underutilizing services than either those who are of ethnic minority but whose mothers do not work, or those whose mothers work, but are not of ethnic minority.

Although there appears to be some geographical variability on the percentage of mothers in the labor force, even the regions with the lowest estimates had roughly half of all mothers of young children in the labor force. Therefore, there is a nationwide need for policies that are sensitive to maternal employment.

Table 3

Estimated Percentage of Children Whose Mothers Are in the Labor Force

| | Estimated Percentage of Children Whose Mothers Are in the Labor Force | Estimated Percentage of Children Who Are Minority and Have Mothers in the Labor Force | Estimated Percentage of Minority Children Whose Mothers Are in the Labor Force |
|---|---|---|---|
| Region I<br>ME, NH, VT,<br>MA, RI, CT | 58 | 8 | - |
| Region II<br>NY, NJ, MI | 46 | 12 | 40 |
| Region III<br>PA, OH, IN,<br>KY, WV | 55 | 7 | - |
| Region IV<br>DE, MD, DC<br>VA, NC, TN | 56 | 17 | 51 |
| Region V<br>SC, GA, FL<br>AL, MS, AR, LA | 54 | 20 | 50 |
| Region VI<br>TX, NM, CO | 57 | 23 | 53 |
| Region VII<br>OK, KS, MO, IL | 54 | 15 | 50 |
| Region VIII<br>WI, MN, IA, ND, SD<br>NE, MT, ID, WY, UT,<br>WA, OR | 63 | 7 | - |
| Region IX<br>AZ, NV, CA | 48 | 21 | 43 |
| US TOTAL | 54 | 15 | 48 |

Note. Estimates are based on data from families of children under 5 in which a mother resides in the household
The populations of Alaska and Hawaii were too small to generate reliable estimates and both are unique states which can not easily be grouped with other states. However, national estimates do include Alaska and Hawaii.

There do appear to be significant ethnic differences in maternal labor force participation (See Table 5). Nationwide, 56% of White non-Latino mothers, 53% of Black mothers, and 39% of Latino mothers were in the labor force. Given the 95% confidence intervals for each estimate (55 to 58%, 48 to 58%, and 34 to 44%, respectively), there may not be a difference between White non-Latino and Black labor force participation. However, there does appear to be a significant difference between labor force participation among Latinos and the other two major groups. Latino mothers were less likely than other mothers to be in the labor force (See Figure 6).

**Female-headed household**. Nationwide, 24% of young children lived in families headed by a single female. This figure breaks down into approximately 10% White non-Latino, 10% Black, and 3% Latino (See Table 4). Within ethnic group, Black children were more likely to live in a female-headed household than either of the two other groups examined (See Table 5). Our results indicate that whereas approximately 63% of Black children lived in female-headed households, only 27% of Latino and 14% of White non-Latino children lived in female-headed households. Given that the 95% confidence intervals (12 to 15%, 59 to 67%, and 22 to 31%) for White non-Latino, Black, and Latino do not overlap, it is reasonable to suppose that the three groups were significantly different in the number of children who lived in female-headed households (See Figure 6).

Our results are comparable to other published statistics. For example, the U.S. Bureau of the Census (1989b) reported that in 1988, 21% of all children under 6 lived in female-headed households; 15% of White, 57% of Black and 28% of Latino children.

**Maternal education less than 12 years**. Our tabulations indicate that approximately 17% of the mothers of children less than 5 years of age, who lived with their children (7% White non-Latino, 4% Black, and 6% Latino), had not completed a

Table 4

Estimated National Percentage of Family Factors Hypothesized to Determine Utilization of Services, by Ethnic Group

| | Percent of all Children | Percentage White Non-Latino of Total Child Population | Percentage Black of Total Child Population | Percentage Latino of Total Child Population |
|---|---|---|---|---|
| Children living in families with very low income | 35 | 16 | 10 | 7 |
| Children with mothers in the labor force | 54 | 37 | 8 | 5 |
| Children in female-headed household | 24 | 10 | 10 | 3 |
| Mothers with less than high school education | 17 | 7 | 4 | 6 |
| Families with more than one child under 5 | 26 | 18 | 4 | 3 |
| Families with more than three children under 18 | 9 | 5 | 2 | 2 |
| Children with mothers under 20 at children's birth | 9 | 4 | 2 | 1 |

Note. All estimates are on the basis of the population of children younger than 5.

Table 5

Estimated National Percentage of Some of the Family Factors Hypothesized to Determine Utilizations of Services, Within Ethnic Group

| | Percentage White Non-Latino of Total Child Population | Percentage Black of Total Child Population | Percentage Latino of Total Child Population |
|---|---|---|---|
| Children living in families with very low income | 24 | 65 | 60 |
| Children with mothers in the labor force | 56 | 53 | 39 |
| Children in female-headed household | 14 | 63 | 27 |
| Mothers with less than high school education | 10 | 24 | 50 |
| Families with more than one child under 5 | 26 | 26 | 28 |
| Families with more than three children under 18 | 7 | 12 | 15 |
| Children with mothers under 20 at children's birth | 6 | 17 | 11 |

Note. All estimates are on the basis of the population of children younger than 5.

high school education or its equivalent. Within ethnic groups 10% of White non-Latino mothers, 24% of Black, and 50% of Latino mothers were estimated to have less than a high school education. Given the 95% confidence intervals for the three groups (9 to 11%, 29 to 39% and 47 to 54%, respectively), our results suggest that the three groups of mothers have significantly different rates of high school completion (See Figure 6).

Statistics on maternal education are typically reported in terms of the percentage of live births to mothers with a specific level of education. Although our definition is slightly different, our results are comparable to the statistics reported by the National Center for Health Statistics (1989). For 1987, 19.8% of live births were to mothers who had less than 12 years of education.

**Large family**. Nationwide, approximately a quarter of families with one child under the age of 5 (26%) had at least one more infant or preschooler (See Table 4.). Eighteen percent of the families were White non-Latino, 4% were Black, and 3% were latino. The percentage of families that had a child younger than 5 and at least one more preschooler was equal across ethnic groups (26, 26 and 28% for White non-Latino, Black, and Latino, respectively) (See Table 5). However, the percentage of families with a child younger than 5 who had more than three children under 18 was higher for minority families (12 and 15% for Black and Latino respectively; 95% confidence intervals of 10 to 14% and 13 to 17%, respectively) than for White non-Latino families (7% with 6 to 8% confidence interval). Overall, 9% of families with one child under 5 had more than three children under the age of 18 (See Figure 6).

**Teen mother**. Approximately 9% of children younger than 5, living with their mothers, were born to teenage mothers (See Table 4) (4% White non-Latino, 2% Black, and 1% Latino). By ethnic group, 6% of White non-Latino children, 17% of Black children, and 11% of Latino children under 5 were born to teenage mothers (See Figure 6).

**Multiple Determinants**

In the preceding sections, we reported the estimated percentage of children who had one determinant of underutilization of health and social services, and the percentage of children who had two determinants-- ethnic minority and one of the other determinants. We propose that increasing number of determinants have a multiplicative effect on the probability of underutilizing services. We believe that the three strongest determinants of underutilization are income, time and ethnicity, so we suggest that children who have all three determinants are at particularly high risk of underutilizing services.

**Very low income and mother in the labor force.** Our results indicate that nationwide 12% of children under 5 lived in families with VLI and had mothers in the labor force. Of these, approximately half were also ethnic minorities. Thus, 6% of all young children had 3 determinants of underutilization, quite possibly putting them at relatively greater risk of not utilizing services.

Whereas 9% of White non-Latino children lived in families with VLI and had mothers in the labor force, 20% of young minority children, or approximately 1,235,000 children nationwide were in the same circumstances.

Within ethnic group, the percentage of children who lived in families with VLI and had mothers in the labor force represented 25% of Black children, and 16% of Latino children. Interestingly, within ethnic group, the proportion of working mothers with VLI to all working mothers does not differ substantially across groups (.67 for White, non-Latino, .71 for Blacks, and .69 for Latino). In other words, the probability that a working mother's family income is very low is consistent across ethnic groups.

**Very low income, mother in the labor force, and at least one more determinant of underutilization.** Our results indicate that overall, 11% of all young children and 20% of young minority children lived in families with VLI, had

mothers in the labor force, and had at least one more of the following determinants of underutilization: teenaged mother at the child's birth, maternal education less than high school, lived in female-headed household, or lived in a large family. Of these, approximately half (6%) were also from an ethnic minority. This latter group of children had at least four determinants of underutilization.

**Children without any determinants of underutilization**. A logical extension of our results on the percentage of children who had one or more determinants of underutilization was to examine the percentage of children who had none of the determinants. Our tabulations indicate that only 7% of all young children were White, non-Latino, lived in families with incomes above 150% of the poverty line, had mothers who were not in the labor force, did not live in families headed by a single female, had mothers with at least a high school education who gave birth to them at age 20 or older, did not have a sibling under 5, and had fewer than three siblings under 18 years of age. Including ethnic minorities, the percentage of children with none of the other determinants was 9%. These estimates more than any other pinpoint the need for policies that make services available for all families.

## IMPLICATIONS

### Study Limitations

There are two major limitations of this study in particular and an additional limitation that is true of all studies which estimate population values. All three limitations should be taken into account in the interpretation of our results. First, there are several important determinants of underutilization for which we could not produce estimates. Second, in order to provide reliable estimates, and summarize data, we had to forgo examining the variability of the determinants. We think that both issues merit study, but they were beyond the scope of this project. Lastly, we wish to stress

that all the rates presented in this report are estimates rather than population values. They may provide a fair indication of the prevalence of factors of interest, but should not be taken as exact.

**Determinants not examined**. We could not examine all of the determinants of underutilization. For example, although place of residence is a major factor in the availability of services, the data source we used did not indicate residence in such a way as to allow us to estimate the percentage of children in inner cities or in remote rural areas. Neither could we estimate the availability of services. In addition, we realize that contact with the service sector increases the likelihood that families will be referred for services they may need. However, we could not estimate the extent to which families with young children have contact with the service sector. Lastly, the CPS survey does not provide information on people who were homeless. Thus, our estimates do not include homeless children.

**Variability of the estimates**. Second, because increases in the size of the sample substantially improve reliability, data were pooled across ethnic groups and/or geographical areas at the expense of information on variability. The reader should be aware that our findings overestimate rates in various geographical areas and/or ethnic groups and underestimate them in others. Examples of geographical variability abound. We estimated that 35% of young children live in families with VLI. But, Haveman, Danziger and Plotnick (1991), in a study of poverty rates, pooled three years of data from the CPS and found seven states 5 percentage points above and five states 5 percentage points below the national average. Similarly, Haveman et al., (1991) report that poverty among Blacks ranged 37 percentage points between the state with the lowest and highest poverty rates for Blacks. Within state variability of many of the determinants examined is also high. For example, whereas our findings indicate that 29% of the children in the region that includes Tennessee were Black, the

percentage of Black children in Memphis in 1980 was estimated at 61% by the Children's Defense Fund (1991).

Variability within ethnic groups is also striking. Although for some statistics we grouped ethnic minorities, policy makers should be aware that determinants and values for ethnic groups can differ markedly. For example, whereas Black children are much more likely than Latino children to live in a single parent family, Latino children are more likely than Black children to have a mother with less than a high school education. Even within ethnic groups, differences in behavior are common. Although Mexican-Americans, Cuban-Americans, and Puerto Ricans are all part of the Latino population, differences in the lifestyles of the three groups are substantial (Prosser, 1991; Bruder et al., 1991).

Because there is ample evidence of variation between and within ethnic groups and states, state policymakers need to recognize that our pooled estimates may not always be appropriate for their individual state. State policymakers should interpret our results in light of their knowledge about their specific state.

**Summary**

The primary purpose of this study was to highlight the prevalence of family sociodemographic factors that have been associated with underutilization of health and social services. Examination of the three single determinants that we consider most important indicates that 32% were of ethnic minority, 35% lived in families with VLI, and 54% of young children had mothers in the labor force. Because we propose that the probability of underutilization increases disproportionately with increase in the number of determinants in a family, we also examined the occurrence of joint determinants. Our findings indicate that 6% of young children were of ethnic minority, live in families with VLI and have mothers in the labor force. Only 7% of the children under 5 were free from any of the determinants of underutilization.

Given our findings, we suggest that a substantial proportion of the children in need of services may be underserved unless policies make services that are appropriate available to their families. Providing services for the population of children who are typically underserved is particularly important because these children tend to have a greater than average prevalence of health problems and developmental delays (Egbuonu & Starfield, 1982; Tuma, 1989; Zill & Schoeborn, 1990). Thus, a population is served not when the number of children receiving services is proportional to the size of the population, but when the number is proportional to the need of that population. Assume that in a particular state 6% of the young child population is of very low income, minority ethnic status, and that the mothers have low education. Also assume that the prevalence of developmental delay within that group of children is twice that of the rest of the young child population. Then, for that that group of children to be adequately served, 11% of the clients should come from that population rather than the 6% one might expect.

Efforts to avoid systematic underutilization of services should range from policies at the federal and state level to actual practices in the delivery of service. The section that follows lists policy options.

## POLICY RECOMMENDATIONS

In this section we outline four types of policies that may facilitate the participation of families who are typically underserved. Our guiding principle in designing these is that policies that are favorable to families that are typically underserved are favorable to all families. The first two sets of policies arise from the model we presented of determinants of service utilization. One set of policies addresses families' perception of problems and needs, and the second addresses the enabling factors. The last two

sets address two key principles of IDEA with respect to families. The policies attempt to provide concrete guidelines for ways to empower families and to include minority populations.

**Policies That Impact on Families' Perception of Problems and Needs**

An important strategy to increase participation of families who are typically underserved is to address those families' perceptions of developmental problems and their knowledge of services to ameliorate or correct the condition. Two ways to reach populations that may underutilize services is through public awareness campaigns and through service delivery systems with which families may have contact. Both strategies are well recognized.

**Public awareness**. In addition to the mass media, public awareness campaigns should target ethnic minority publications, and radio and television stations. The campaigns should include churches, libraries, schools, and any other community organizations or businesses frequented by ethnic minority members. Except in large cities, minority ethnic communities often have "a" grocery store, drugstore, or garage favored by a large segment of the minority community. Businesses such as these are ideal for placing posters or leaving literature. To be effective, information on what constitutes a developmental delay, and what the service options are, must be appropriate to the educational level, value system and world view of the target audience. Approaches to presenting information may differ substantially by target population.

**Referrals from other service delivery systems**. Referrals are an important way of reaching populations who may underutilize services. To work most effectively, the net of potential referents must be wide. Special effort should be made to reach service providers, community leaders, and clergy who deal with young

families and/or young children. They should be well informed of the availability of early intervention services.

**Policies that Enhance the Enabling Factors**

The enabling factors are the intersection between families and the service sector. Therefore, policies that strengthen these factors can substantially improve participation by populations that may underutilize them.

**Reducing cost of services**. Given our findings that 35% of all young children lived in families with VLI, and that for minorities the rate of VLI was 60 to 65%, the inability to pay for services can be a major barrier to utilization. Both the direct and indirect cost of services should be minimized.

**Providing transportation**. Policies can address families' needs for transportation by taking services to families or by providing the means for families to travel to services. Options include mobile units, vouchers for bus or taxi fare, and reimbursing families for the cost of transportation.

**Providing child care for siblings**. A major barrier to family participation in early intervention services can be the cost or difficulty of procuring adequate supervision for other dependent children in the family. To improve participation rates of families of ethnic minorities and/or VLI, service programs should include on-site child care for the child who receives services and for siblings while parents meet with professionals.

**Service delivery at day care settings**. Because approximately half of the children under 5 have mothers in the labor force, it may be feasible to deliver services very efficiently at child care settings. Child care arrangements vary substantially, and some arrangements such as center based care lend themselves better to service delivery than others. But services may be delivered efficiently in home care situations even if the provider cares for only two handicapped children.

The level of integration between child care and early intervention services could vary substantially. At one end of the continuum, service providers can travel to the child care setting to provide services. Meetings with parents can be scheduled at either the beginning or end of the day. At the other end of the continuum, with maximal integration between the two types of services, child care and service facilities could be housed and administered together.

In any event, if one assumes that a young child is awake for approximately 12 hours each day, children who are in full time daycare spend roughly half of their waking hours in the care of someone other than their parents. The level of participation of non-parental caregivers should be determined jointly by parents, caregivers, and professionals on an individual basis. However, the importance of non-parental caregivers should be recognized.

**Policies That Empower Families**

Stated very clearly in PL 99-457 and in PL 102-119 is the mandate for services to empower families. We suggest that to empower families means to ascertain that they have a wide range of choices and the freedom to choose among these. Thus, choice is power. Families should be able to determine who are its members. They should have a choice of the language of interactions, time for meetings, and of the person who is to serve as their service coordinator. They should also be encouraged to bring an advocate to meetings.

**Definition of the family**. Leaving the definition of the family open to families themselves can present obvious problems. Services could be channelled to helping members other than the young children in need. However, allowing families to define themselves is favorable for all who do not live in a nuclear two-parent family. In order to strike a balance between freedom of choice and assuring that services benefit young children in need, a functional criterion could be applied to the family members

who are to be included in services. For example, a grandmother may be identified as the family member who is to sit on IFSP meetings. She may receive training on the needs of the child if that grandmother has been identified as the person who provides child care while the mother is employed outside the home. A clear identification at the outset of the assessment procedure of who family members are and what roles they play may permit states to allow families to identify themselves.

**Choice of language**. It is as unreasonable to assume that all Latino families prefer to interact in Spanish as it is to assume that none would feel more comfortable if meetings were conducted in Spanish. Proficiency in the English language is varied among immigrants. Because the choice of language varies by situation, the family's native language or even the language typically spoken at home does not necessarily identify the language that families would choose for meetings. Moreover, children's language preference can be different from their parents'. For a child who speaks, the best indication of the child's language preference is to note the language in which the child **initiates** conversation to an adult who the child **knows** is **perfectly** bilingual. The best alternative is to allow families and children to choose the language to be used in assessment or meetings.

**Choice of scheduling times**. Our emphasis on the effect of maternal employment on utilization of services should not be misinterpreted as a suggestion that mothers of young children should not be in the labor force. Our role is to design policies that will address social realities. The fact is that approximately half of all mothers of young children are in the labor force, and a large proportion of these mothers also live in families with very low income. If a family's income is very low, it is likely that the employed mother's job does not allow flexibility in working hours. In order to maximize maternal involvement, meetings and services should be available in

the evening and during the weekends. Flexible scheduling can have the added benefit of making participation also feasible for working fathers.

**Choice of service coordinator.** Family satisfaction with services is likely to be related to the family's confidence in and degree of rapport with their service coordinator. All families should be free to choose their service coordinator. In particular, families from ethnic minority groups should have the option of choosing a service coordinator from their own ethnic group. However, it should not be assumed that families from ethnic minorities will automatically prefer a service coordinator from their same ethnic group.

**Choice of a family advocate.** A potentially effective way of empowering families is to encourage them to include an advocate of their choice in interactions with service providers. Ideally a family advocate is someone who is comfortable among professionals, has the confidence of the family, and can maintain the perspective of the family. The advocate is likely to be most effective when the person is chosen by the family. Nonetheless, parents who have been in the service system for some time can serve as parent advocates to families who are new in the system. Or, members of the clergy, and community leaders, particularly those from minority groups, can be recruited to occasionally serve as advocates for parents who can not readily identify one themselves. However, it is probably best not to designate specific individuals for the role of parent advocate because it would be difficult for an advocate who plays the role repeatedly to maintain their independence from the service system.

## Policies That Monitor and Support Services to Minorities

Two important issues in the delivery of services to minority populations are the extent to which the minority groups are being reached, and the extent to which their needs are being met in a culturally appropriate manner. Potential strategies to deal with these two issues are as follows. Data systems can be set up to specifically

monitor the participation rate of ethnic or other minorities. Emphasis can be placed on recruiting and training personnel from the various ethnic minorities. All personnel can be trained to be sensitive to cultural differences in their client population. And, an appropriate individual or committee can be assigned the task of training, supervising and providing technical assistance on minority issues.

**Data systems**. Data systems can be designed to provide a summary of the sociodemographic characteristics of the children and families receiving services. The data can then be compared to the estimated number of children and families with those sociodemographic characteristics in the service area. Most importantly, delivery of services can be compared to the estimated need within those subgroups.

**Black, Latino, Native American and Asian service providers**. There are many reasons why the ethnic background of service providers should be representative of the client population. For example, families may develop closer rapport with a service provider who is from their ethnic group. It simply makes good policy sense to have staff that is representative of the client population.

**Cultural sensitivity**. Training, assistance, and supervision of all staff on issues of cultural sensitivity are crucial if ethnic minorities are to enter and stay in the service system. The issue of what constitutes cultural sensitivity is very complex. It should not mean accepting behaviors on the part of children or adults that are suboptimal to children's development. It does mean accepting and working within the roles, values and world views of the ethnic group. It means that professionals need to examine very carefully their own values in light of those of the ethnic minority and determine which can be adapted for a better fit, and which can not be modified. For example, a major premise of early intervention is that parents should be "equal partners" with professionals. However, with some ethnic groups that type of

relationship may not be feasible. Many Latinos and Asians are quite deferential to professionals. They expect professionals to be experts and share to that expertise with assurance. A professional who seems to vacillate may be viewed as incompetent. Over time, with the development of trust and confidence, roles can change. In short, cultural sensitivity does not mean accepting everything that is typical or stereotypical of ethnic minorities. It does mean being willing to be flexible, even with some of our most cherished professional values.

Because the issue of cultural sensitivity is so important and so ripe for problems and misunderstandings, we suggest that states assign the responsibility of training, supervision and monitoring to an individual or group. Personnel can be hired or consultants can be recruited from the ethnic minorities and committees of community leaders can be formed to provide assistance.

**Summary**

Above we have outlined policies that we think are favorable to all families. First, we suggest policies that may enhance families' knowledge about child conditions for which services may be available. Second, we list policies to strengthen enabling factors. The aim of these is to make services feasible. Third, we contend that choice is power and thus policies that allow families to choose, automatically give them power. And last, we suggest that special efforts can be made to provide services that are culturally appropriate to ethnic minorities.

If any or all of these policies are to be implemented we suggest that they must be instituted at the state level. Choice can be exercised at the local level, but few of the policies described above can be left to be developed and implemented at the local level. Without a coherent statewide plan, choices are not possible at the local level. For example, training and recruitment of personnel from ethnic minorities is beyond the scope of local service programs. Irrespective of local intent to hire minorities, local

programs will not find trained professionals from ethnic minorities if there isn't a comprehensive state or federal training plan. Second, the option of diverting funds from the provision of services to long term goals such as training cannot be left up to service providers. Because of their orientation and training, service providers will always identify the provision of services as the need with the highest priority. There will always be more children who could be served and/or children who could be given more extensive services. If funds are to be allocated to other than direct services, these must be earmarked at the state or federal legislative level. Thus, the lead in the development of progressive policies needs to be taken at the state or federal level.

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